



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

NORTHERN REGIONAL OFFICE

13901 Crown Court, Woodbridge, Virginia 22193

(703) 583-3800 Fax (703) 583-3821

www.deq.virginia.gov

Douglas W. Domenech
Secretary of Natural Resources

David K. Paylor
Director

Thomas A. Faha
Regional Director

4 August 2011

Mr. James Sheridan
Vice President
American Water Operations & Maintenance
1025 Laurel Oak Road
Voorhees, NJ 08034

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

Re: Reissuance of Virginia Pollutant Abatement (VPA) Permit No. VPA00008
Fort A.P. Hill – Cooke Campsite STP, Caroline County

Dear Mr. Sheridan:

The Department of Environmental Quality (DEQ) has approved the enclosed limitations and monitoring requirements for the aforementioned permit. This permit supersedes the previous VPA Permit VPA00008 issued to this facility. A copy of your permit and the VPA Monitoring Report forms are included. Please make additional copies of the Monitoring Report forms for future use.

Please note the following with this permit reissuance:

- The first Monitoring Report for the month of September is due by 10 October 2011;
- The first groundwater monitoring report is due 10 July 2012 for the January 2012 – June 2012 monitoring period;
- The first quarterly summary report is due 10 January 2012 for the fourth quarter of 2011; and
- The first annual summary report is due 10 February 2012.

Please send monitoring results and reports to:

Virginia Department of Environmental Quality
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193-1453

Please reference the limits and requirements in your permit and report monitoring results to the same number of significant digits as are included in the permit for the parameter.

Please note that compliance with the permit's requirements for use and disposal of sewage sludge do not relieve you of your responsibility to comply with federal requirements set forth in 40 CFR Part 503. Until DEQ seeks and is granted authority to

administer the Part 503 regulations by EPA, treatment works treating domestic sewage should continue to work directly with EPA to comply with them.

As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a notice of appeal in accordance with the Rules of the Supreme Court of Virginia with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to that period.

Alternately, any owner under §§ 62.1-44.16, 62.1-44.17, and 62.1-44.19 of the State Water Control Law aggrieved by any action of the State Water Control Board taken without a formal hearing, or by inaction of the Board, may demand in writing a formal hearing of such owner's grievance, provided a petition requesting such hearing is filed with the Board. Said petition must meet the requirements set forth in §1.23(b) of the Board's Procedural Rule No. 1. In cases involving actions of the Board, such petition must be filed within thirty days after notice of such action is mailed to such owner by certified mail.

A Reliability Class II is assigned to this facility and this facility has Class IV licensed operator requirements.

Please contact Douglas Frasier at 703-583-3873 or via email at Douglas.Frasier@deq.virginia.gov, if you have any questions regarding this permit.

Respectfully,



Bryant Thomas
Water Permits Manager

Enc.: Permit No. VPA00008

cc: DEQ-Water, OWPP
EPA-Region III, 3WP12
Department of Health, Culpeper
Water Compliance, NRO

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
VPA MONITORING REPORT

Form 1 - Page 1 of 3

Name Cooke Campsite STP
Address Fort AP Hill
Bowling Green, VA 22427

Sampling Location Storage Pond Effluent

VPA00008
PERMIT NUMBER

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

MONITORING PERIOD					
YR	MO	DAY	YR	MO	DAY
FROM			TO		

PARAMETER		QUANTITY OR LOADING			UNITS	QUALITY OR CONCENTRATION			NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE	RPTNG REQ
		AVERAGE	MAXIMUM			MINIMUM	AVERAGE	MAXIMUM				
001 FLOW	RPRTD								**			
	RQMT	0.0168	NL		MGD				**	1/D	TIRE	1/M
002 PH	RPRTD											
	RQMT											
003 BOD5	RPRTD								0	1/D	GRAB	1/M
	RQMT											
004 TSS	RPRTD								0	1/M	COMP	1/M
	RQMT											
120 E. COLI	RPRTD								**			
	RQMT								**			
157 TRC (1)	RPRTD								**	1/M	GRAB	1/M
	RQMT											
213 TECH. MIN. TRC (1)	RPRTD								3	1/D	GRAB	1/D
	RQMT											
500 OIL AND GREASE	RPRTD								0	1/D	GRAB	1/D
	RQMT								**			
XXX VOLUME IN STORAGE	RPRTD								**	1/M	GRAB	1/M
	RQMT								**			
XXX LAGOON FREEBOARD	RPRTD								**	1/M	CALC	1/M
	RQMT								**			
XXX HOURLY IRRIGATION RATE	RPRTD								**	1/M	MEAS	1/M
	RQMT								**			
XXX DAILY IRRIGATION RATE	RPRTD								**	1/D	CALC	1/M
	RQMT								**			
XXX WEEKLY IRRIGATION RATE	RPRTD								**	1/D	CALC	1/M
	RQMT								**	1/W	CALC	1/M
XXX TOTAL VOLUME TO SITE	RPRTD								**	1/M	CALC	1/M
	RQMT								**			
039 NH3-N	RPRTD								**	1/M	COMP	1/M
	RQMT								**			

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
VPA MONITORING REPORT

Form 1 - Page 2 of 3

Name Cooke Campsite STP
Address Fort AP Hill
Bowling Green, VA 22427
Sampling Location Storage Pond Effluent

VPA00008	
PERMIT NUMBER	

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

MONITORING PERIOD					
YR	MO	DAY	YR	MO	DAY
			TO		

FROM

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE	RPTNG REQ
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				
010 NO3-N	RPRTD	*****	*****	***	*****		*****	**			
	RQMT	*****	*****	***	*****	NL	*****	**	1/M	COMP	1/M
068 TKN	RPRTD	*****	*****	***	*****		*****	**			
	RQMT	*****	*****	***	*****	NL	*****	**	1/M	COMP	1/M
012 PHOSPHORUS TOTAL	RPRTD	*****	*****	***	*****		*****	**			
	RQMT	*****	*****	***	*****	NL	*****	**	1/M	COMP	1/M
XXX PHOSPHORUS (P2O5) (YEAR TO DATE)	RPRTD	*****	*****	***	*****		*****	**			
	RQMT	*****	*****	***	*****	NL	*****	**	1/M	CALC	1/M
755 POTASSIUM TOTAL	RPRTD	*****	*****	***	*****		*****	**			
	RQMT	*****	*****	***	*****	NL	*****	**	1/M	COMP	1/M
136 SODIUM TOTAL	RPRTD	*****	*****	***	*****		*****	**			
	RQMT	*****	*****	***	*****	NL	*****	**	1/M	COMP	1/M
756 CALCIUM TOTAL	RPRTD	*****	*****	***	*****		*****	**			
	RQMT	*****	*****	***	*****	NL	*****	**	1/M	COMP	1/M
035 MAGNESIUM TOTAL	RPRTD	*****	*****	***	*****		*****	**			
	RQMT	*****	*****	***	*****	NL	*****	**	1/M	COMP	1/M
372 BORON TOTAL	RPRTD	*****	*****	***	*****		*****	**			
	RQMT	*****	*****	***	*****	NL	*****	**	1/M	COMP	1/M
202 CADMIUM TOTAL RECOVERABLE	RPRTD	*****	*****	***	*****		*****	**			
	RQMT	*****	*****	***	*****	NL	*****	**	1/M	COMP	1/M
211 CHROMIUM TOTAL RECOVERABLE	RPRTD	*****	*****	***	*****		*****	**	1/5Y	COMP	1/5Y
	RQMT	*****	*****	***	*****	NL	*****	**			
203 COPPER TOTAL RECOVERABLE	RPRTD	*****	*****	***	*****		*****	**	1/5Y	COMP	1/5Y
	RQMT	*****	*****	***	*****	NL	*****	**			
233 LEAD TOTAL RECOVERABLE	RPRTD	*****	*****	***	*****		*****	**	1/5Y	COMP	1/5Y
	RQMT	*****	*****	***	*****	NL	*****	**			
235 MERCURY TOTAL RECOVERABLE	RPRTD	*****	*****	***	*****		*****	**	1/5Y	COMP	1/5Y
	RQMT	*****	*****	***	*****	NL	*****	**			
185 NICKEL TOTAL RECOVERABLE	RPRTD	*****	*****	***	*****		*****	**	1/5Y	COMP	1/5Y
	RQMT	*****	*****	***	*****	NL	*****	**	1/5Y	COMP	1/5Y

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
VPA MONITORING REPORT

Form 1 - Page 3 of 3

Name Cooke Campsite STP
Address Fort AP Hill
Bowling Green, VA 22427
Sampling Location Storage Pond Effluent

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

VPA00008
PERMIT NUMBER

MONITORING PERIOD							
YR	MO	DAY	YR	MO	DAY		
						TO	

FROM

PARAMETER	QUANTITY OR LOADING			QUANTITY OR CONCENTRATION			NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE	RPTNG REQ
	AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				
1% ZINC TOTAL RECOVERABLE	*****	*****	***	*****		*****	**			
699 PLANT AVAILABLE NITROGEN (PAN)	*****	*****	***	*****	NL	*****	**	1/5Y	COMP	1/5Y
XXX PAN (YEAR TO DATE)	*****	*****	***	*****	NA	*****	**	1/M	CALC	1/M
XXX SODIUM ABSORPTION RATIO	*****	*****	***	*****	NA	*****	**	1/M	CALC	1/M
	*****	*****	***	*****	NA	*****	**	1/M	CALC	1/M

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS

(1) Effluent sampling for TRC shall be performed after storage and chlorination.

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
VPA MONITORING REPORT

Form 2 - Page 1 of 2

Name Cooke Campsite STP
Address Fort AP Hill
Bowling Green, VA 22427
Sampling Location Soil Monitoring/Application

VPA000008
PERMIT NUMBER

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)
Northern Va. Regional Office
13901 Crown Court
Woodbridge, VA 22193

MONITORING PERIOD			
YR	MO	DAY	TO

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE	RPTNG REQ
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				
XXX PHOSPHORUS (P2O5)	RPRTD	*****	*****	***	*****		*****	**			
	ROMNT	*****	*****	***	*****	NL	*****	**	1/Y	COMP	1/Y
767 CATION EXCHANGE CAPACITY (CEC)	RPRTD	*****	*****	***	*****		*****	**			
	ROMNT	*****	*****	***	*****	NL	*****	**	1/Y	COMP	1/Y
768 EXCHANGEABLE CALCIUM	RPRTD	*****	*****	***	*****		*****	**			
	ROMNT	*****	*****	***	*****	NL	*****	**	1/Y	COMP	1/Y
769 EXCHANGEABLE MAGNESIUM	RPRTD	*****	*****	***	*****		*****	**			
	ROMNT	*****	*****	***	*****	NL	*****	**	1/Y	COMP	1/Y
770 EXCHANGEABLE POTASSIUM	RPRTD	*****	*****	***	*****		*****	**			
	ROMNT	*****	*****	***	*****	NL	*****	**	1/Y	COMP	1/Y
771 EXCHANGEABLE SODIUM	RPRTD	*****	*****	***	*****		*****	**			
	ROMNT	*****	*****	***	*****	NL	*****	**	1/Y	COMP	1/Y
XXX EXCHANGEABLE SULFUR	RPRTD	*****	*****	***	*****		*****	**			
	ROMNT	*****	*****	***	*****	NL	*****	**	1/Y	COMP	1/Y
010 NH3-N	RPRTD	*****	*****	***	*****		*****	**			
	ROMNT	*****	*****	***	*****	NL	*****	**	1/Y	COMP	1/Y
XXX ORGANIC NITROGEN	RPRTD	*****	*****	***	*****		*****	**			
	ROMNT	*****	*****	***	*****	NL	*****	**	1/Y	COMP	1/Y
013 NITROGEN TOTAL	RPRTD	*****	*****	***	*****		*****	**			
	ROMNT	*****	*****	***	*****	NL	*****	**	1/Y	COMP	1/Y
766 SOIL ORGANIC MATTER	RPRTD	*****	*****	***	*****		*****	**			
	ROMNT	*****	*****	***	*****	NL	*****	**	1/Y	COMP	1/Y
XXX BASE SATURATION	RPRTD	*****	*****	***	*****		*****	**			
	ROMNT	*****	*****	***	*****	NL	*****	**	1/Y	CALC	1/Y
XXX EXCHANGEABLE SODIUM % (ESP)	RPRTD	*****	*****	***	*****		*****	**			
	ROMNT	*****	*****	***	*****	NL	*****	**	1/Y	CALC	1/Y
XXX SOIL PH	RPRTD	*****	*****	***	*****		*****	**			
	ROMNT	*****	*****	***	*****	NL	*****	**	1/Y	COMP	1/Y

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
VPA MONITORING REPORT

Form 2 - Page 2 of 2

Name Cooke Campsite STP
Address Fort AP Hill
Bowling Green, VA 22427
Sampling Location Soil Monitoring/Application

VPA000008	
PERMIT NUMBER	

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)
Northern Va. Regional Office
13901 Crown Court
Woodbridge, VA 22193

MONITORING PERIOD					
YR	MO	DAY	YR	MO	DAY
			TO		

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION				NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE	RPTNG REQ
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM	UNITS				
XXX HYDRAULIC CONDUCTIVITY	RPRTD	*****	*****	***	*****		*****		**			
	ROMNT	*****	*****	***	*****	NL	*****	in/hr	**	1/5Y	COMP	1/5Y
2002 CADMIUM TOTAL RECOVERABLE	RPRTD	*****	*****	***	*****		*****		**			
	ROMNT	*****	*****	***	*****	NL	*****	ppm	**	1/5Y	COMP	1/5Y
211 CHROMIUM TOTAL RECOVERABLE	RPRTD	*****	*****	***	*****		*****		**			
	ROMNT	*****	*****	***	*****	NL	*****	ppm	**	1/5Y	COMP	1/5Y
203 COPPER TOTAL RECOVERABLE	RPRTD	*****	*****	***	*****		*****		**			
	ROMNT	*****	*****	***	*****	NL	*****	ppm	**	1/5Y	COMP	1/5Y
233 LEAD TOTAL RECOVERABLE	RPRTD	*****	*****	***	*****		*****		**			
	ROMNT	*****	*****	***	*****	NL	*****	ppm	**	1/5Y	COMP	1/5Y
362 MANGANESE TOTAL RECOVERABLE	RPRTD	*****	*****	***	*****		*****		**			
	ROMNT	*****	*****	***	*****	NL	*****	ppm	**	1/5Y	COMP	1/5Y
235 MERCURY TOTAL RECOVERABLE	RPRTD	*****	*****	***	*****		*****		**			
	ROMNT	*****	*****	***	*****	NL	*****	ppm	**	1/5Y	COMP	1/5Y
185 NICKEL TOTAL RECOVERABLE	RPRTD	*****	*****	***	*****		*****		**			
	ROMNT	*****	*****	***	*****	NL	*****	ppm	**	1/5Y	COMP	1/5Y
196 ZINC TOTAL RECOVERABLE	RPRTD	*****	*****	***	*****		*****		**			
	ROMNT	*****	*****	***	*****	NL	*****	ppm	**	1/5Y	COMP	1/5Y
XXX PARTICLE SIZE ANALYSIS OR USDA TEXTURAL EST	RPRTD	*****	*****	***	*****		*****	%	**	1/5Y	COMP	1/5Y
	ROMNT	*****	*****	***	*****	NL	*****		**			

ADDITIONAL PERMIT REQUIREMENTS OR COMMENTS

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
VPA MONITORING REPORT

Form 3 - Page 1 of 1

Name Cooke Campsite STP
Address Fort AP Hill
Bowling Green, VA 22427
Sampling Location Groundwater Monitoring
Well Number: MW-

VPA000008
PERMIT NUMBER

DEPT. OF ENVIRONMENTAL QUALITY
(REGIONAL OFFICE)

Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

MONITORING PERIOD					
YR	MO	DAY	YR	MO	DAY
			TO		

FROM

PARAMETER		QUANTITY OR LOADING			QUALITY OR CONCENTRATION			NO. EX.	FREQUENCY OF ANALYSIS	SAMPLE TYPE	RPTNG REQ (2)
		AVERAGE	MAXIMUM	UNITS	MINIMUM	AVERAGE	MAXIMUM				
145 CHLORIDE	RPRTD	*****	*****	***	*****		*****	***			
	QMNT	*****	*****	***	*****	NL	*****	***	2/Y	GRAB	2/Y
214 CONDUCTIVITY	RPRTD	*****	*****	***	*****		*****	***			
	QMNT	*****	*****	***	*****	NL	*****	***	2/Y	GRAB	2/Y
010 NO3-N	RPRTD	*****	*****	***	*****		*****	***			
	QMNT	*****	*****	***	*****	NL	*****	***	2/Y	GRAB	2/Y
120 E. COLI	RPRTD	*****	*****	***	*****		*****	***			
	QMNT	*****	*****	***	*****	NL	*****	***	2/Y	GRAB	2/Y
751 STATIC WATER LEVEL	RPRTD	*****	*****	***	*****		*****	***			
	QMNT	*****	*****	***	*****	NL	*****	***	2/Y	MEAS	2/Y
002 PH	RPRTD	*****	*****	***	*****		*****	***			
	QMNT	*****	*****	***	*****	NL	*****	***	2/Y	GRAB	2/Y
072 ALKALINITY AS CaCO3	RPRTD	*****	*****	***	*****		*****	***			
	QMNT	*****	*****	***	*****	NL	*****	***	2/Y	GRAB	2/Y

COMMONWEALTH OF VIRGINIA
DEPARTMENT OF ENVIRONMENTAL QUALITY
VPA MONITORING REPORT

Name Cooke Campsite STP
Address Fort AP Hill
Bowling Green, VA 22427
Location Cooke Campsite STP

VPA00008
PERMIT NUMBER

DEPT. OF ENVIRONMENTAL QUALITY
(RREGIONAL OFFICE)
Northern Regional Office
13901 Crown Court
Woodbridge, VA 22193

MONITORING PERIOD					
YR	MO	DAY	YR	MO	DAY
FROM			TO		

<p>I hereby certify under penalty of law that this document and all attached report forms were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.</p>		OPERATOR IN RESPONSIBLE CHARGE			DATE				
		TYPED OR PRINTED NAME		SIGNATURE		CERTIFICATE NO	YR	MO	DAY
		PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT							
		TYPED OR PRINTED NAME		SIGNATURE		TELEPHONE		YR	MO



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No. **VPA00008**
Effective Date: **August 2, 2011**
Expiration Date: **August 1, 2021**

AUTHORIZATION TO MANAGE POLLUTANTS UNDER THE VIRGINIA POLLUTANT ABATEMENT PERMIT AND THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the State Water Control Law and the Permit Regulations pursuant thereto, the following owner is authorized to manage pollutants in conformity with the application, plans, specifications and supporting data submitted to the Department of Environmental Quality and other conditions set forth in this permit.

Owner Name: American Water Operations & Maintenance
Owner Address: 1025 Laurel Oak Road, Voorhees, NJ 08043
Facility Name: Cooke Campsite Sewage Treatment Plant
County: Caroline
Facility Location: Fort A.P. Hill, Bowling Green

The authorized pollutant management shall be in accordance with this cover page, Part I – Monitoring Requirements and Special Conditions and Part II – Conditions Applicable to all VPA Permits, as set forth herein.

A handwritten signature in cursive script, reading "Thomas A. Faha".

Thomas A. Faha
Director, Northern Regional Office
Department of Environmental Quality

A handwritten signature in cursive script, reading "August 2, 2011".

Date

A. Effluent Limitations and Monitoring Requirements**1. Wastewater Plant Effluent Prior to Irrigation**

During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to manage pollutants at Cooke Campsite STP. The pollutants shall be limited and monitored by the permittee as specified below.

Parameter	Limitations	Monitoring Requirements	
		Frequency	Sample Type
Flow (MGD) ⁽¹⁾	NL	Continuous	TIRE
pH	6.0 S.U. – 9.0 S.U.	1/D	Grab
BOD ₅	60 ppm maximum	1/M	Composite
Total Suspended Solids (TSS)	60 ppm maximum	1/M	Composite
Oil and Grease	NL ppm	1/M	Grab
<i>E. coli</i> (Geometric Mean)	NL n/100 mL	1/M	Grab
Total Residual Chlorine ⁽²⁾	2.0 ppm minimum	1/D	Grab
Total Kjeldahl Nitrogen (TKN)	NL ppm	1/M	Composite
Ammonia, as N	NL ppm	1/M	Composite
Nitrate, as N	NL ppm	1/M	Composite
Phosphorus (P ₂ O ₅)	NL ppm	1/M	Composite
Phosphorus (P ₂ O ₅) (Year to Date) ⁽³⁾	NL lb/acre	1/M	Calculated
Potassium (K ₂ O)	NL ppm	1/M	Composite
Sodium, Total	NL ppm	1/M	Composite
Magnesium, Total	NL ppm	1/M	Composite
Calcium, Total	NL ppm	1/M	Composite
Boron, Total	NL ppm	1/M	Composite
Cadmium, Total Recoverable	NL ppb	1/5Y	Grab
Chromium, Total Recoverable	NL ppb	1/5Y	Grab
Copper, Total Recoverable	NL ppb	1/5Y	Grab
Lead, Total Recoverable	NL ppb	1/5Y	Grab
Mercury, Total Recoverable	NL ppb	1/5Y	Grab
Nickel, Total Recoverable	NL ppb	1/5Y	Grab
Zinc, Total Recoverable	NL ppb	1/5Y	Grab
Volume in Storage	NL MG	1/M	Calculated
Lagoon Freeboard ⁽⁴⁾	1 ft minimum	1/M	Measured
Hourly Irrigation Rate	See Special Condition 12	1/D	Calculated
Daily Irrigation Rate	See Special Condition 12	1/D	Calculated
Weekly Irrigation Rate	See Special Condition 12	1/W	Calculated
Total Volume to Site	gal/acre/month	1/M	Calculated
Plant Available Nitrogen	NL lb/acre	1/M	Calculated
Plant Available Nitrogen (Year to Date) ⁽⁵⁾	NL lb/acre	1/M	Calculated
Sodium Adsorption Ratio (SAR) ⁽⁶⁾	NA	1/M	Calculated

⁽¹⁾ The design flow is 0.0168 MGD.

⁽²⁾ After chlorination, prior to irrigation.

⁽³⁾ Total loading shall not exceed crop removal rate.

⁽⁴⁾ Report monthly, regardless of discharge.

⁽⁵⁾ Total loading shall not exceed crop requirements.

MGD = Million gallons per day.

NA = Not applicable.

NL = No limit; monitor and report.

S.U. = Standard units.

TIRE = Totalizing, indicating and recording equipment.

ppm = Parts per million.

ppb = Parts per billion.

MG = Million Gallons

1/D = Once every day.

1/W = Once every week.

1/M = Once every month.

1/5Y = Once every 5 years.

$$(6) \quad \text{SAR} = \frac{\text{Na}}{\sqrt{0.5 (\text{Ca} + \text{Mg})}}$$

Where: Na = sodium in meq/L
Ca = calcium in meq/L
Mg = magnesium in meq/L

Composite = A flow proportional composite sample collected manually or automatically, and discretely or continuously. Where discrete sampling is employed, the permittee shall collect a minimum of four (4) aliquots for compositing. Discrete sampling may be flow proportioned either by varying the time interval between each aliquot or the volume of each aliquot. Time composite samples consisting of a minimum four (4) grab samples obtained at hourly or smaller intervals may be collected where the permittee demonstrates that the discharge flow rate (gallons per minute) does not vary by 10% or more during the monitored discharge.

Grab = An individual sample collected over a period of time not to exceed 15-minutes.

2. Soil Monitoring Requirements

During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to manage pollutants at the land application site. The pollutants shall be limited and monitored by the permittee as specified below.

Parameter	Monitoring Quantifications	Monitoring Requirements	
		Frequency ⁽¹⁾	Sample Type ⁽²⁾
Exchangeable Calcium	NL ppm	1/Y	Composite
Exchangeable Magnesium	NL ppm	1/Y	Composite
Exchangeable Potassium	NL ppm	1/Y	Composite
Exchangeable Sodium	NL ppm	1/Y	Composite
Exchangeable Sulfur	NL ppm	1/Y	Composite
Exchangeable Sodium Percentage (ESP) ⁽³⁾	Percent	1/Y	Calculated
Cation Exchange Capacity (CEC)	meq/100 g	1/Y	Composite
Phosphorus ⁽⁴⁾	NL ppm	1/Y	Composite
Ammonia Nitrogen	NL ppm	1/Y	Composite
Organic Nitrogen	NL ppm	1/Y	Composite
Soil pH	NL S.U.	1/Y	Composite
Soil Organic Matter	Percent	1/Y	Composite
Base Saturation	Percent	1/Y	Calculated
Hydraulic Conductivity ⁽⁵⁾	Inches/hour	1/5Y	Composite
Particle Size Analysis	Percent	1/5Y	Composite
Cadmium, Total Recoverable	NL ppb	1/5Y	Composite
Chromium, Total Recoverable	NL ppb	1/5Y	Composite
Copper, Total Recoverable	NL ppb	1/5Y	Composite
Lead, Total Recoverable	NL ppb	1/5Y	Composite
Manganese, Total Recoverable	NL ppb	1/5Y	Composite
Nickel, Total Recoverable	NL ppb	1/5Y	Composite
Zinc, Total Recoverable	NL ppb	1/5Y	Composite

⁽¹⁾ Soil samples shall be collected during the month of October and results submitted to DEQ-NRO on or before January 10th of the following year.

NA = Not applicable.

1/Y = Once every calendar year.

NL = No limit; monitor and report.

1/5Y = Once every 5 years.

S.U. = Standard units.

⁽²⁾ Soil composite samples shall be representative of the predominant soil type within the irrigation field. Samples shall be taken 0 – 6 inches deep in the effluent application area. The most restrictive soil horizon shall be used when sampling for metals, subsurface particle size and soil hydraulic conductivity.

ppm = Parts per million.

ppb = Parts per billion.

⁽³⁾
$$ESP = \frac{Na \times 100}{CEC}$$
 Where: Na = sodium in meq/L

⁽⁴⁾ The permittee shall use the Mehlich I procedure to determine the phosphorus soil level.

⁽⁵⁾ If the Hydraulic Conductivity value is found to decrease significantly as determined by DEQ-NRO, the sampling frequency may be increased to semi-annual or quarterly upon notification from DEQ-NRO.

3. Groundwater Monitoring Requirements

During the period beginning with the permit's effective date and lasting until the expiration date, the permittee is authorized to manage pollutants in groundwater at the sewage treatment plant and land application site. The pollutants shall be limited and monitored by the permittee as specified below.

Parameter	Monitoring Quantifications	Monitoring Requirements	
		Frequency ⁽¹⁾	Sample Type ⁽²⁾
Static Water Level	NL ft/in	2/Y	Measured
pH	NL S.U.	2/Y	Grab
Conductivity	NL μ mhos/cm	2/Y	Grab
Chlorides	NL ppm	2/Y	Grab
Nitrate, as N	NL ppm	2/Y	Grab
Alkalinity as CaCO ₃	NL ppm	2/Y	Grab
<i>E. coli</i>	NL n/100 mL	2/Y	Grab

⁽¹⁾ The monitoring period shall be January – June and July – December of each calendar year.

NA = Not applicable.

2/Y = Twice every calendar year.

NL = No limit; monitor and report.

⁽²⁾ Sampling shall be conducted per the 17 October 2003 approved groundwater monitoring plan.

S.U. = Standard units.

ppm = Parts per million.

B. Total Residual Chlorine Limitations and Monitoring Conditions.

1. Total Residual Chlorine (TRC) shall be monitored at the outlet of the chlorine contact tank once per day.
2. No more than three (3) of all samples for TRC taken after the chlorine contact tank shall be less than 2.0 mg/L for any one calendar month.
3. No TRC sample collected after the chlorine contact tank shall be less than 0.6 mg/L.

C. Special Conditions.

1. Prohibition of Point Source Discharge

There shall be no discharge of pollutants to surface waters from this operation except in the case of a storm even greater than a 25-year, 24-hour storm.

2. 95% Capacity Reopener

A written notice and a plan of action for ensuring continued compliance with the terms of this permit shall be submitted to the Northern Regional Office when the monthly average flow influent to the sewage treatment plant reaches 95% of the design capacity authorized in this permit for each month of any three consecutive month period. The written notice shall be submitted within 30 days and the plan of action shall be received at the Northern Regional Office no later than 90 days from the third consecutive month for which the flow reached 95% of the design capacity. The plan shall include the necessary steps and a prompt schedule of implementation for controlling any current or reasonably anticipated problem resulting from high influent flows. Failure to submit an adequate plan in a timely manner shall be deemed a violation of this permit.

3. Indirect Dischargers

The permittee shall provide adequate notice to the Department of the following:

- a). Any new introduction of pollutants into the treatment works from an indirect discharger which would be subject to Section 301 or 306 of Clean Water Act and the State Water Control Law if it were directly discharging those pollutants; and
- b). Any substantial change in the volume or character of pollutants being introduced into the treatment works by a source introducing pollutants into the treatment works at the time of issuance of this permit.
- c). Adequate notice shall include information on (i) the quality and quantity of effluent introduced into the treatment works, and (ii) any anticipated impact of the change on the quantity or quality of effluent to be discharged from the treatment works.

4. O&M Manual Requirement

The permittee shall maintain a copy of the approved Operations and Maintenance (O&M) Manual at the treatment works or at a central location. Future changes to the facility must be addressed by the submittal of a revised O&M Manual within 90 days of the changes. Non-compliance with the O&M Manual shall be deemed a violation of the permit.

5. CTC, CTO Requirement

The permittee shall, in accordance with *Sewage Collection and Treatment* regulation (9 VAC 25-790) obtain a Certificate to Construct (CTC) and a Certificate to Operate (CTO) from the Department of Environmental Quality prior to constructing wastewater treatment works and operating the treatment works respectively. Non-compliance with the CTC or CTO shall be deemed a violation of the permit.

6. Licensed Operator Requirement

The permittee shall employ or contract at least one Class IV licensed wastewater works operator for this facility. The license shall be issued in accordance with Title 54.1 of the Code of Virginia and the regulations of the Board for Waterworks and Wastewater Works Operators. The permittee shall notify the Department in writing whenever he is not complying, or has grounds for anticipating he will not comply with this requirement. The notification shall include a statement of reasons and a prompt schedule for achieving compliance.

7. Reliability Class

The permitted treatment works shall meet Reliability Class II.

8. Sludge Management Plan and Reopener

The permittee shall conduct all sewage sludge use or disposal activities in accordance with the approved Sludge Management Plan (SMP). Any proposed changes in the sewage sludge use or disposal practices or procedures followed by the permittee shall be documented and submitted for DEQ and Department of Health approval 90 days prior to the effective date of the changes. Upon approval, the revised SMP becomes an enforceable part of the permit. The permit may be modified or alternatively revoked and reissued to incorporate limitations or conditions necessitated by substantive changes in sewage sludge use or disposal practices.

9. Facility Closure Plan

If the permittee plans an expansion or upgrade to replace the existing treatment works, or if the facility is permanently closed, the permittee shall submit to the DEQ-NRO a closure plan for the treatment works. The plan shall address liquid and sludge removal, odor control measures, structure and pipe removal, steps to prevent unauthorized access, fill materials, final grading and seeding. The plan should contain proposed dates for beginning and completing the work. The plan must be approved by the DEQ and the Virginia Department of Health prior to implementation.

10. Materials Handling/Storage

Any and all product, materials, industrial wastes, and/or other wastes resulting from the purchase, sale, mining, extraction, transport, preparation, and/or storage of raw or intermediate materials, final product, by-product or wastes, shall be handled, disposed of, and/or stored in such a manner so as not to permit a discharge of such product, materials, industrial wastes, and/or other wastes to State waters, except as expressly authorized.

11. Site Specification

Wastewater shall be applied only at the sites identified in the permit application dated 2 February 2011.

12. Effluent Application Rates

Application rates in terms of depth of effluent applied to the site shall not exceed 0.25 inch per hour, 1 inch per day and 2 inches per week or the following monthly available capacities:

Irrigation Schedule	Available Capacity inches/acre ⁽⁴⁾
April 15-30	3.32
May	8.87
June	10.08
July	11.02
August	10.81
September	8.52
October	7.38
November 1-15	3.03

However, during periods of low precipitation amounts, the permittee shall apply effluent to the crop in sufficient amounts in order to maintain a viable stand.

13. Operational Requirements

For all land treatment of wastewater, the following shall be required:

- a. There shall be no application of wastewater to the ground when it is saturated, frozen or covered with ice or snow and during periods of rainfall.
- b. The chosen method of wastewater application shall minimize human contact with the wastewater.

- c. Application or irrigation systems used for land treatment of wastewater shall be designed, installed and adjusted to:
 - 1. Provide uniform distribution of wastewater over the land treatment site;
 - 2. Prevent ponding or pooling of wastewater at the land treatment site;
 - 3. Facilitate maintenance and harvesting of the land treatment site and precludes damage to the application or irrigation system from the use of maintenance or harvesting equipment;
 - 4. Prevent aerosol carry-over from the land treatment site to areas beyond the setback distances described in Part I.C.19.; and
- d. Any wastewater runoff shall be confined to the land application site.

14. Groundwater Monitoring

The permittee shall continue sampling and reporting in accordance with the ground water monitoring plan approved on 17 October 2003. The purpose of this plan is to determine if the system integrity is being maintained and to indicate if activities at the site are resulting in violations of the Board's Ground Water Standards. The approved plan is an enforceable part of the permit. Any changes to the plan must be submitted for approval to the DEQ Northern Regional Office.

If monitoring results indicate that any unit has contaminated the ground water, the permittee shall submit a corrective action plan within 60 days of being notified by the regional office. The plan shall set forth the steps to be taken by the permittee to ensure that the contamination source is eliminated or that the contaminant plume is contained on the permittee's property. In addition, based on the extent of contamination, a risk analysis may be required. Once approved, this plan and/or analysis shall be incorporated into the permit by reference and become an enforceable part of this permit.

15. Nutrient Loading Rate

The annual PAN application rate for the irrigation site cannot exceed the maximum annual recommendation of 250 pounds/acre/year and the Phosphorus application rate cannot exceed the crop removal for Orchardgrass at 16 pounds per yield in tons. If the crop grown on the irrigation site is changed, updated PAN and Phosphorus application rate information and fertilizer recommendations shall be submitted to DEQ-NRO for approval within 90 days of the change.

16. Freeboard Requirements

All wastewater storage facilities shall maintain one foot of freeboard at all times, up to and including a 25-year, 24-hour storm.

17. Quarterly Summary Report

A summary report of the previous quarter's activities shall be prepared and submitted to the DEQ Northern Regional Office by the 10th day of the following month. Quarters are defined as 1 January – 31 March; 1 April – 30 June; 1 July – 30 September; and 1 October – 31 December. Reports shall include:

- a. Analyses of composite samples of municipal wastewater land applied during the previous quarter in accordance with Parts I.A.1.
- b. Results of soils and groundwater monitoring, as applicable, in accordance with Part I.A.2 and Part I.A.3., respectively, of the permit.
- c. Land Application Site information describing the wastewater applied to each field during the previous quarter.
- d. A summary of the quantities of wastewater stored in or withdrawn from storage facilities and the remaining storage capacity.
- e. A summary of staff gauge readings demonstrating freeboard maintenance.
- f. A summary of spray head utilization demonstrating compliance with the hydraulic loading schedule of the O&M Manual.

18. Annual Project Summary Report. An annual project summary report shall be prepared and submitted to the DEQ Regional Office by 10th of February of each year and shall include the following:

- a. A summary of the monitoring data results including wastewater, soils and groundwater analyses.
- b. The yearly water balance showing inputs to and drawdown from storage facilities.
- c. Land application site information describing the wastewater applied to each field during the previous year with the annual and cumulative loading limiting constituents specified in Part I.A of the permit and the remaining site life for each field.
- d. A summary of the agronomic practices which occurred during the preceding growing season, including but not limited to, the timing and number of crop cuttings and an estimate of total crop yield (bushel/acre or tons/acre) removed from each field; any lime, fertilizer or soil amendment applications made to a field other than that in the wastewater applied to the same field (describe type and quantities); and reseeding.
- e. A general statement of past system performance and the status of the permitted facilities with regard to complying with Virginia Pollution Abatement Permit requirements.

19. Buffer zones

The following minimum buffer zones shall be maintained from the site of wastewater application to the features noted below. Buffer zones shall be maintained with 60% or more vegetative cover of the soil surface.

a. Drinking water supply wells or springs	100
b. Occupied dwellings	100
c. Property lines	50
d. Surface water courses (including dry ditches)	50
e. All improved roadways	25
f. Rock outcrops (excludes limestone outcrops)	25
g. Limestone outcrops	50

20. Wind Restriction

Land Application of waste waters or highly liquid sludges shall not occur during winds of sufficient strength to cause overspray or drifting of aerosols into or beyond the buffer zones.

21. Slope Limitations

Irrigation of wastewater to new fields should only occur on land with a maximum slope of 5%. If it is necessary to irrigate areas with steeper slopes, special precautions shall be taken to prevent seepage or runoff of effluent to surface waters. Land application of wastewater cannot occur on slopes exceeding 12% grade.

22. Crop Harvest

The permittee shall harvest hay grown of the land application sites as outlined in the approved O&M Manual. Hay that has been harvested and baled shall not remain on site during or after the growing season.

23. Irrigation Schedule

Irrigation of wastewater shall not occur between 15 November and 15 March of each year.

24. Crop Selection

Crops to be consumed raw by humans shall not be grown on the land application site.

25. Vegetative Cover

The permittee shall maintain a complete grass cover on the irrigation site through liming, fertilizing, reseeding and weed control as necessary.

26. Human and Livestock Access

The irrigation site shall be adequately enclosed with suitable fencing and posted to prevent livestock and human access. Dairy animals and beef cows shall not be allowed on the irrigation site within 60 and 30 days following wastewater application, respectively. Dairy animals and beef cows shall not be allowed to consume green chopped forage from the irrigation site if it is removed within 60 and 30 days following wastewater application, respectively.

27. Berm Maintenance

The permittee shall properly maintain all wastewater lagoon berms by mowing, prohibiting tree and shrub establishment and removal of burrowing animals.

28. Report Certification

All monitoring reports submitted to DEQ-NRO shall include a signed VPA monitoring Report Certification.

CONDITIONS APPLICABLE TO ALL VPA PERMITS**A. Monitoring**

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.
2. Monitoring shall be conducted according to procedures approved under Title 40 Code of Federal Regulations Part 136 or alternative methods approved by the U.S. Environmental Protection Agency, unless other procedures have been specified in this permit.
3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will insure accuracy of measurements.

B. Records

1. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) and time(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years, the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Board.

C. Reporting Monitoring Results.

1. The permittee shall submit the results of the monitoring required by this permit not later than the 10th day of the month after monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to:

Department of Environmental Quality - Northern Regional Office (DEQ-NRO)
13901 Crown Court
Woodbridge, VA 22193

Monitoring results shall be reported on a Discharge Monitoring Report (DMR) or on forms provided, approved or specified by the Department.

2. If the permittee monitors any pollutant specifically addressed by this permit more frequently than required by this permit using test procedures approved under Title 40 of the Code of Federal Regulations Part 136 or using other test procedures approved by the U.S. Environmental Protection Agency or using procedures specified in this permit, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or reporting form specified by the Department.
3. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to Provide Information.

The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Board may require the permittee to furnish, upon request, such plans, specifications, and other pertinent information as may be necessary to determine the effect of the wastes from this discharge on the quality of state waters, or such other information as may be necessary to accomplish the purposes of the State Water Control Law. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

E. Compliance Schedule Reports.

Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each schedule date.

F. Unauthorized Discharges.

Except in compliance with this permit, or another permit issued by the Board, it shall be unlawful for any person to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or
2. Otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, or for recreation, or for other uses.

G. Reports of Unauthorized Discharges.

Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of Part II.F.; or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of Part II.F., shall notify the Department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the Department, within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the Department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of Unusual or Extraordinary Discharges.

If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the Department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse affects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the Department within five days of discovery of the discharge in accordance with Part II.I.2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the treatment works; and
4. Flooding or other acts of nature.

I. Reports of Noncompliance.

The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this paragraph:
 - a. Any unanticipated bypass; and
 - b. Any upset which causes a discharge to surface waters.
2. A written report shall be submitted within 5 days and shall contain:
 - a. A description of the noncompliance and its cause;
 - b. The period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
 - c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Board may waive the written report on a case-by-case basis for reports of noncompliance under Part II.I. if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Parts II, I.1. or I.2., in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II.I.2.

NOTE: The immediate (within 24 hours) reports required in Parts II, G., H. and I. may be made to the Department's Northern Regional Office at (703) 583-3800 (voice) or (703) 583-3821 (fax). For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24-hour telephone service at 1-800-468-8892.

J. Notice of Planned Changes.

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - a. The permittee plans alteration or addition to any building, structure, facility, or installation from which there is or may be a discharge of pollutants, the construction of which commenced:
 - 1) After promulgation of standards of performance under Section 306 of Clean Water Act which are applicable to such source; or
 - 2) After proposal of standards of performance in accordance with Section 306 of Clean Water Act which are applicable to such source, but only if the standards are promulgated in accordance with Section 306 within 120 days of their proposal;
 - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations nor to notification requirements specified elsewhere in this permit; or
 - c. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
2. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory Requirements.

1. All permit applications shall be signed as follows:
 - a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - 1) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or
 - 2) The manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
 - b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - c. For a municipality, state, federal, or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes:
 - 1) The chief executive officer of the agency, or
 - 2) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
2. All reports required by permits, and other information requested by the Board shall be signed by a person described in Part II.K.1., or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - a. The authorization is made in writing by a person described in Part II.K.1.;
 - b. The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
 - c. The written authorization is submitted to the Department.
3. Changes to authorization. If an authorization under Part II.K.2. is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II.K.2. shall be submitted to the Department prior to or together with any reports, or information to be signed by an authorized representative.
4. Certification. Any person signing a document under Parts II, K.1. or K.2. shall make the following certification:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

L. Duty to Comply.

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law and the Clean Water Act, except that noncompliance with certain provisions of this permit may constitute a violation of the State Water Control Law but not the Clean Water Act. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.

The permittee shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this permit has not yet been modified to incorporate the requirement.

M. Duty to Reapply.

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee shall apply for and obtain a new permit. All permittees with a currently effective permit shall submit a new application at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Board. The Board shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

N. Effect of a Permit.

This permit does not convey any property rights in either real or personal property or any exclusive privileges, nor does it authorize any injury to private property or invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State Law.

Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by Section 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" (Part II.U.), and "upset" (Part II.V.) nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. Oil and Hazardous Substance Liability.

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

Q. Proper Operation and Maintenance.

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes effective plant performance, adequate funding, adequate staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the permittee only when the operation is necessary to achieve compliance with the conditions of this permit.

R. Disposal of solids or sludges.

Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. Duty to Mitigate.

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. Need to Halt or Reduce Activity not a Defense.

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

U. Bypass.

1. "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Parts II, U.2. and U.3.
2. Notice
 - a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, prior notice shall be submitted, if possible at least ten days before the date of the bypass.
 - b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II.I.
3. Prohibition of bypass.
 - a. Bypass is prohibited, and the Board may take enforcement action against a permittee for bypass, unless:
 - 1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - 2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - 3) The permittee submitted notices as required under Part II.U.2.
 - b. The Board may approve an anticipated bypass, after considering its adverse effects, if the Board determines that it will meet the three conditions listed above in Part II.U.3.a.

V. Upset.

1. An upset constitutes an affirmative defense to an action brought for noncompliance with technology based permit effluent limitations if the requirements of Part II.V.2. are met. A determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is not a final administrative action subject to judicial review.
2. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated;
 - c. The permittee submitted notice of the upset as required in Part II.I.; and
 - d. The permittee complied with any remedial measures required under Part II.S.
3. In any enforcement proceeding the permittee seeking to establish the occurrence of an upset has the burden of proof.

W. Inspection and Entry.

The permittee shall allow the Director, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Clean Water Act and the State Water Control Law, any substances or parameters at any location.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is discharging. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit Actions.

Permits may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

Y. Transfer of permits.

1. Permits are not transferable to any person except after notice to the Department. Except as provided in Part II.Y.2., a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued, or a minor modification made, to identify the new permittee and incorporate such other requirements as may be necessary under the State Water Control Law and the Clean Water Act.
2. As an alternative to transfers under Part II.Y.1., this permit may be automatically transferred to a new permittee if:
 - a. The current permittee notifies the Department at least 30 days in advance of the proposed transfer of the title to the facility or property;
 - b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
 - c. The Board does not notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in Part II.Y.2.b.

Z. Severability.

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.